



# EXPLORATORY BORING LOG

EXCELTECH

Project Name: Ultramar Station No. 700 Boring No. MW-19  
7898 Old Redwood Highway  
Cotati, California  
Project Number: 3-30055-32 Date Drilled: 7/31/91  
Logged By: N. L. Nack

Depth (ft.)	Sample No.	Blows/Foot	Unified Soil Classification	SOIL DESCRIPTION	Water Level	OVN Reading (ppm)
1				3 inch asphalt, 8 inch aggregate base, then 1 inch base, then 1 inch asphalt		
2			CL	FILL-sandy clay, dark brown (10YR 3/3), sand =25%, silt 15-20%, soft, moist - brick and gravel in first 1-1/2 feet		0.0
3						
4						
5		25	SC	CLAYEY SAND, dark brown (10YR 3/3), clay 30-40%, silt =10%, medium gravel, subangular, moderately dense		
6						
7						
8			CL	CLAY, dark brown (10YR 3/3), silt =20%, sand =15%, medium stiff, moist		
9						
10		15	SC	CLAYEY SAND, dark brown (10YR 5/3), clay =40%, decreases downward, sand grades from coarse to fine downward		0.0
11						
12						
13			CL	CLAY, dark brown (10YR 3/3), silt =20%, sand =15%, medium stiff, moist		
14						
15			SC	CLAYEY SAND, dark yellowish brown (10YR 4/3), clay =30-40%, medium grained, increasing in clay content down section, moderately dense, moist		
16	19-1	28	CL	SILTY CLAY, brown (10YR 5/3), silt =20%, sand =15%, medium stiff, moist		0.0
17						
18						
19						
20		25	SC	CLAYEY SAND, olive brown (2.5Y 4/4), clay =30-40%, moderately dense, saturated, 4-5 inch thick clay interbeds		
21						

REVIEWED BY R.G./C.E.G. JWP cef 1261

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7898 Old Redwood Highway  
Cotati, California  
Project Number: 3-30055-32

Boring No. MW-19  
Date Drilled: 7/30/91  
Logged By: N. L. Nack

Depth (ft.)	Sample No.	Blows/Foot	Unified Soil Classification	SOIL DESCRIPTION	Water Level	OVM Reading (ppm)
22				CLAYEY SAND, con't		
23						
24						
25						
26		19	ML CL	CLAYEY SILT, olive (5Y 4/4) with sand, silt 50-60%, fine grained sand		0.0
27			SP	=5-10% POORLY GRADED SAND, olive (5Y 4/4), medium grained, moderately dense, saturated		
28			SC	CLAYEY SAND, dark grayish brown (10YR 4/2), clay =30-40%, moderately dense, wet		
29						
30						
31		22	CL	SANDY CLAY, dark gray (5Y 4/1) sand =30%, one inch thick-sand of CH at top, stiff, very moist		0.0
32			SC	CLAYEY SAND, dark grayish brown (10YR 4/2), clay =30%, moderately dense to loose, saturated		
33						
34						
35		19	CL	Sandy CLAY with silt, dark grayish brown (10YR 4/2), silt =20%, sand =30%, soft, saturated		0.0
36			SC	CLAYEY SAND, dark gray (5GY 4/1), silt =20%, clay =20%, moderately dense, saturated		
37						
38						
39						
40						
41		20	CH	- traces of gravel, thin layers of sandy clay and poorly graded sand CLAY, gray (5Y 4/1) sand =20%, silt =20%, stiff, moist		
42			SP	POORLY GRADED SAND, light olive gray (5Y 6/2), fine grained with pockets of coarse sand		0.0

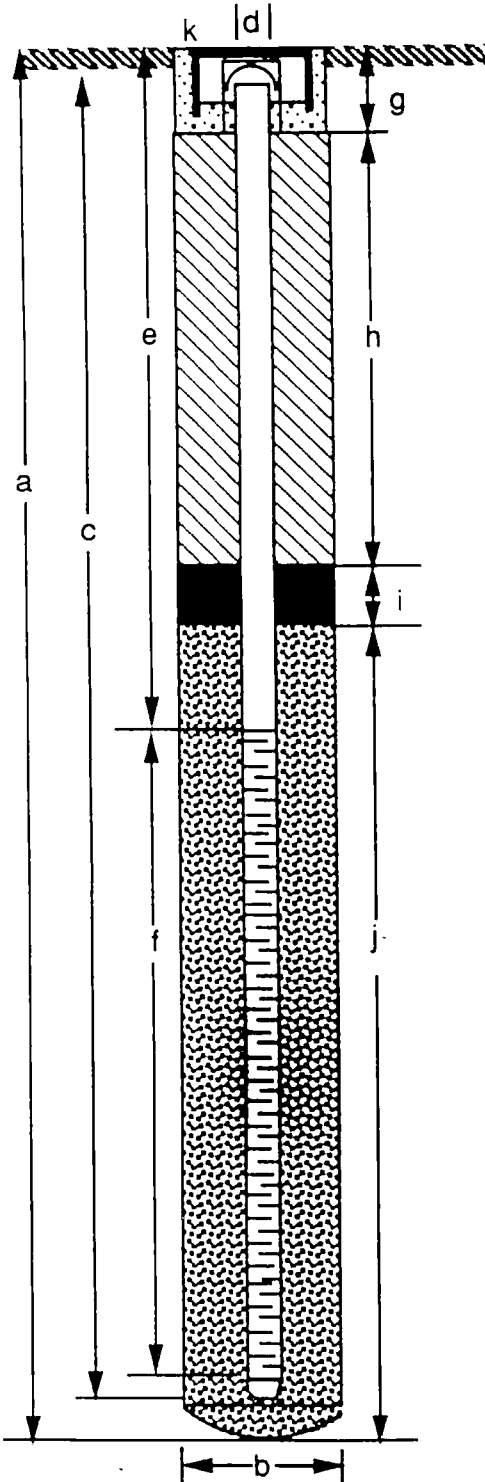
REVIEWED BY R.G./C.E.G. *UMP CE 4/26/2*

BE022558

**EXCELTECH**

# MONITORING WELL DETAIL

Project Number	<u>3-30055-32</u>	Boring/Well No.	<u>MW-19</u>
Project Name	<u>Ultramar Station No. 700</u>	Top of Casing Elev.	<u>106.43</u>
County	<u>Sonoma</u>	Ground Surface Elev.	<u>106.82</u>
Well Permit No.	<u>91-0183-HMW</u>	Datum	<u>Mean Sea Level</u>



## EXPLORATORY BORING

a. Total depth 60 ft.  
 b. Diameter 8 in.  
 Drilling method Hollow stem auger

## WELL CONSTRUCTION

c. Casing length 40 ft.  
 Material Schedule 40 PVC  
 d. Diameter 2 in.  
 e. Depth to top perforations 20 ft.  
 f. Perforated length 20 ft.  
 Perforated interval from 40 to 20 ft.  
 Perforation type Slot  
 Perforation size 0.02 in.  
 g. Surface seal 2 ft.  
 Seal material Concrete  
 h. Backfill 15 ft.  
 Backfill material Cement  
 i. Seal 2 ft.  
 Seal material Bentonite Pellets  
 j. Gravel pack 26 ft.  
 Pack material 2/12 sand  
 k. Water tight traffic rated vault box

Note: Hole caved and packed by driller 4 feet.  
 Bentonite seal 1 foot.

**BE022563**



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Cotati, California

Boring No. MW-19

Date Drilled: 7/30/91

Project Number: 3-30055-32

Logged By: N. L. Nack

Depth (ft.)	Sample No.	Blows/Foot	Unified Soil Classification	SOIL DESCRIPTION	Water Level	OVM Reading (ppm)
43				Poorly graded sand (con't)		
44						
45						
46		31	SM	SILTY SAND, light olive brown (2.5Y 5/4), silt ≈30%, clay ≈10%, moderately dense, wet		0.0
47						
48						
49				- interbeds of clayey sand, clay, and poorly graded sand ≈6 inch thick throughout section		0.0
50						
51		37				
52						
53						
54						
55						
56		41	CH	CLAY, olive gray (5Y 5/2), silt ≈15%, sand 10-15%, some mafics plastic hard, moist		0.0
57			CL	Sandy CLAY, dark grayish brown (2.5Y 4/2) sand 30-40%, silt ≈15%, very moist, stiff		
58		17	CH/CL	CLAY, olive gray (5Y 5/2), silt ≈15%, sand 20-30%, stiff, moderately dense		
59				- grades to clayey sand then back to CL		
60		56	SC	CLAYEY SAND, gray, ≈10% clay, 20% silt, moderately dense, very moist		0.0
61				Bottom of Boring: 60 feet		
62				Groundwater encountered at 20 feet		
63						

REVIEWED BY R.G./C.E.G. *CWP CEU 1262*

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